



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1480  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/802,304

03/17/2004

Clint Miller

TROU1100-1

3979

44654

7590

06/18/2007

SPRINKLE IP LAW GROUP  
1301 W. 25TH STREET  
SUITE 408  
AUSTIN, TX 78705

EXAMINER

VO. TED T

ART UNIT

PAPER NUMBER

2191

MAIL DATE

DELIVERY MODE

06/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/802,304

Applicant(s)

MILLER ET AL.

Examiner

Ted T. Vo

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/17/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/25/06</u>  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. This action is in response to the communication filed on 03/17/2004.

Claims 1-45 are presented and pending.

### *Specification*

2. This is minor objection to the specification. All the blanks in the specification must be filled when the information is available. Every specification of an application requires a standard arrangement as set forth by 37 CFR 1.77(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### *Arrangement of the Specification*

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) **BACKGROUND OF THE INVENTION.**
  - (1) **Field of the Invention.**
  - (2) **Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.**
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) **SEQUENCE LISTING** (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Art Unit: 2191

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

In this specification, FIELD OF THE INVENTION appears as a section heading. It should be noted that FIELD OF THE INVENTION is only a sub (1) under section heading: (f) BACKGROUND OF THE INVENTION. Correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15, 30-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15, 30, 45 are indefinite because the meaning of "wherein the relationship table and the relationship table are distinct " is unclear.

Claims 31-45 are indefinite. There is insufficient antecedent basis in the specification for "computer readable medium". The claims recite a computer readable medium "having code". This limitation is indefinite. If the specification has "computer readable medium", the claims should be amended so that it shows the code is stored in the medium.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2191

6. The claims 1-45 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

As per Claims 1-45:

Claims 1-15 represent modeling an environment (even this claims say as a method); this modeling is within a preemption of an abstract idea. The claims abstractly drafted as ***modeling an environment comprising: representing at least two entities in the environment, wherein each entity is represented with a component; and representing an association between the at least two components with a relationship, which*** produce no real world value. Every claim which merely manipulates an abstract idea or generates no real world values fails to be a statutory claim.

Claims 16-30 represent a system. However, the system is abstractly mentioned as modeling an environment, and has the same limitations as in Claims 1-15. The system does nothing. The system is shown as a data structure. Claims 16-30 fail to be statutory claims.

Claims 31-45 represent a readable medium having code. However, the medium is abstractly mentioned as modeling an environment, and has the same limitations as in Claims 1-15. The medium does nothing. The medium is shown as "having" a list of non-descriptive functional materials. Claims 31-45 fail to be statutory claims. Note: If a medium, which appears using a transmission medium, would not meet the statutory claim under 35 USC 101.

#### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2191

8. Claims 1-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Robert Muller, "Database Design for Smarties Using UML for Data Modeling", Morgan Kaufmann Publishers, 1999.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 1: Muller discloses,

**A method of modeling an environment** (e.g. A Relational Database Schema using a UML model for person subsystem and UML model for Organization subsystem as seen in p. 166, chapter 11 – example: Figure 11-3, p. 169), **comprising: representing at least two entities** (e.g. an entity "person" and entity "Organization" such as seen in p. 168 – See Figure 11-3, p. 169) **in the environment** (i.e. Figure 11-2, p. 168), **wherein each entity is represented with a component** (entity "person" and entity "Organization" (e.g. Figure 11-3)); **and representing an association between the at least two components with a relationship** (for example, within Figure 11-2, Role of a person in an Organization).

As per Claim 2: Muller discloses,

**The method of claim 1, wherein each component is instantiated based on a component type** (Each entity in Muller is UML class, In Figure 11-2, "person" is a component type in class of persons, "Criminalorganization" is a component type in class of Organizations).

As per Claim 3: Muller discloses,

**The method of claim 2, wherein each component type is in a hierarchy of component types** (See Figure 11-2).

As per Claim 4: Muller discloses,

**The method of claim 3, wherein each component type is a parent type or a subtype** ("Organization" is a parent type in case the person is classified in Criminalorganization type).

As per Claim 5: Muller discloses,

**The method of claim 4, wherein the hierarchy of component types is tailored to the environment** (See all context in the book, e.g., hierarchical of persons in an organization).

As per Claim 6: Muller discloses,

Art Unit: 2191

***The method of claim 2, wherein each relationship is instantiated based on a relationship type***  
(properties of OO and UML such as in p. 32-38).

As per Claim 7: Muller discloses,

***The method of claim 6, wherein each relationship type is in a hierarchy of relationship types***  
(properties of OO and UML).

As per Claim 8: Muller discloses,

***The method of claim 7, wherein each relationship type is a parent type or a subtype*** (properties of OO and UML).

As per Claim 9: Muller discloses,

***The method of claim 8, wherein the hierarchy of relationship types is tailored to the environment***  
(properties of OO and UML).

As per Claim 10: Muller discloses,

***The method of claim 6, wherein each component is represented in a component table*** (properties of OO and UML, for example, within p. 37, "TABLE Person (...)).

As per Claim 11: Muller discloses,

***The method of claim 10, wherein each component type is represented in component type table***  
(properties of OO and UML, for example, within p. 37, "TABLE TYPE ALIAS\_TYPE (...)).

As per Claim 12: Muller discloses,

***The method of claim 11, wherein each relationship is represented in a relationship table***  
(properties of OO and UML).

As per Claim 13: Muller discloses,

***The method of claim 12, wherein each relationship type is represented in relationship type table***  
(properties of OO and UML).

As per Claim 14: Muller discloses,

***The method of claim 13, wherein the relationship table links each relationship to at least two components*** (Note the association shown is created by table links, using properties such as one-to-

Art Unit: 2191

many).

As per Claim 15: Muller discloses,

***The method of claim 14, wherein the relationship table and the relationship table are distinct***

(meaning is unclear).

As per Claim 16: Muller discloses,

***A system for modeling an environment*** (e.g. A Relational Database Schema using a UML model for person subsystem and UML model for Organization subsystem as seen in p. 166, chapter 11 – example:

Figure 11-3, p. 169), ***comprising:***

***a set of components*** (For Example: “persons” and “Organizations”, as seen in Figure 11-3) ***wherein***

***each component represents an entity within the environment*** (i.e. Figure 11-2, p. 168); ***and***

***a set of relationships*** (such as: <<Persistent>> Role ), ***wherein each relationship represents an association between at least two of the components.***

As per Claims 17-30: Muller discloses the limitations of claims 17-30: see rationale addressed in Claims 2-15.

As per Claims 31-45: Muller discloses the limitations of claims 31-45: see rationale addressed in Claims 1-15.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

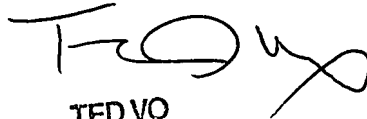
Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may



Art Unit: 2191

be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV  
June 11, 2007

  
TED VO  
PRIMARY EXAMINER